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 Date: JULY 7, 2017
 Bulletin No: TSB-1132
 Models: All 8LHA/8LHP Series Alternators
 Subject: Installation Instructions- 8LHA/8LHP Series Alternators

Installation Instructions 8LHA/8LHP Series Alternators

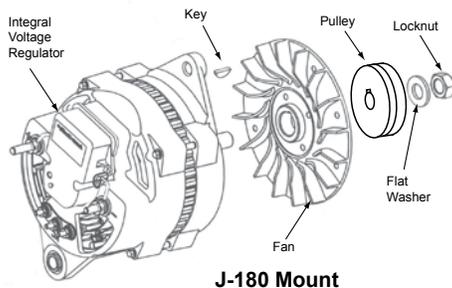
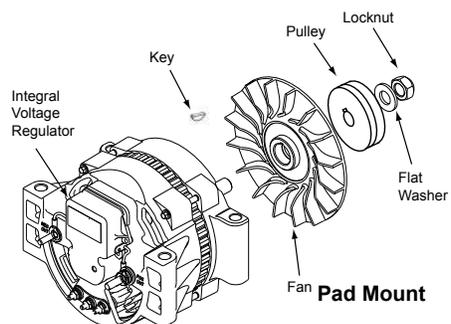


Figure 1 :
Parts Identification



General Information

Heavy duty, electronic alternator system designed for use with both positive and negative ground systems.

This alternator is equipped with a bi-directional fan which can rotate in either a clockwise or counter-clockwise direction. A suitable pulley may be purchased from your local Leece-Neville dealer - See Section 1. For operation in hazardous atmosphere, it has a completely enclosed brush assembly to prevent slip ring contamination and to shield any arcing. The rectifier assembly contains 3 positive and 3 negative diodes to provide more than ample current handling capability. The stator is insulated to provide maximum protection against shorting of the windings to the lamination. The stator has 3 AC tap (R) terminals that can be used for tachometer input.

The alternator includes a fully transistorized integral voltage regulator, preset at 14.2 volts, which performs all of the operations necessary for complete control of the alternator output. The system is temperature compensated to permit the ideal charging rate at all temperatures.

Section I - Pulley Selection

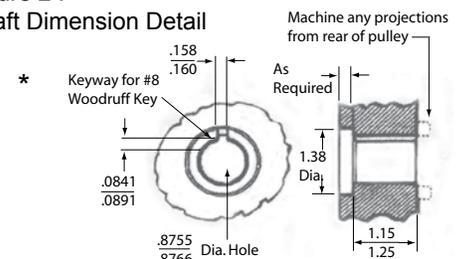
Several pulleys are available from your Leece-Neville dealer to fit a wide variety of applications. There are single and double grooved pulleys which fit standard belt sizes from 3/8" to 11/16", and serpentine pulleys for belts up to 8 grooves. Pulley blanks into which grooves must be cut to fit special belt sizes, are also available.

In addition, any pulley which fits a standard 7/8" shaft can be used. For machining instructions on other than a standard pulley, refer to Figure 2. The pulley is installed on the machine by removing the washer, locknut, and protective composition sleeve and then assembling the pulley on the shaft and tightening in place with the washer and locknut.

NOTE: Torque on pulley locknut - min. 40 to 50 ft. lbs. Maximum not to exceed stamped rating on fan. Failure to regulate torque on impact wrench may result in damaged shaft. Also use pulley nut supplied with alternator.

Figure 2 :

Shaft Dimension Detail



* Some alternator models incorporate a Hex shaft rotor, which will not utilize a keyway.

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Section II - Mounting of Alternator

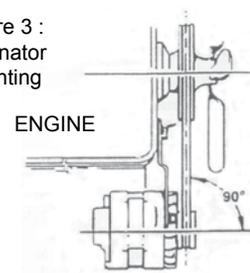
8LHA - J180 Mount Alternator

After the alternator mounting location has been determined, loosely attach the mounting bracket to the engine with the mounting bracket bolts. Position the alternator mounting foot between the 2 ears on the mounting bracket with the alternator mounting bolts. Align the alternator pulley with the engine drive pulley as shown in Figure 3 and tighten the bracket mounting bolts, securing the mounting bracket to the engine. Loosely attach the alternator adjustment bracket to the alternator adjustment ear with the bolt, lockwasher and flat washer. Tighten the fan belt by applying pressure to the alternator front housing **only** and tighten the bolt to the adjustment ear. Tighten the alternator mounting bolts and retighten all other bolts to secure the installation.

CAUTION: Alternator will be permanently damaged if pressure is applied to rear housing. Tighten the fan belt by pressing against front casting near alternator fan.

Set belt tension per belt manufacturer's recommended specifications, and tighten all remaining bolts (contact manufacturer for specifications). If manufacturer's specifications are not readily available, set belt tension tight enough so that the belt on alternator fan pulley will not slip when attempting to rotate alternator fan by hand.

Figure 3 :
Alternator
Mounting



ENGINE
Alternator pulley and drive pulley must be in line with each other

CAUTION: Alternator drive belts do stretch, particularly when they are new. Recheck belt tension from time to time. Belt slippage is more likely to occur with an alternator because of heavy charge rate possible at engine idle.

8LHP - Pad Mount Alternator

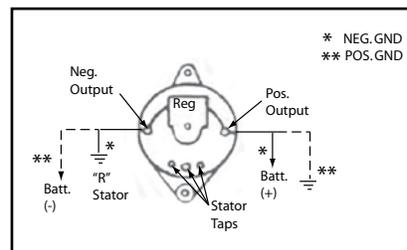
After the alternator mounting location has been determined, place the alternator onto the mounting pad with the part label of the alternator away from the engine and install the 4 mounting bolts. These mounting bolts should be torqued from 30 to 35 lbs-ft. Retract the belt tensioner and install the drive belt.

Section III - Electrical Connections

Note: For detailed wiring instructions for specific models please refer to our website. Go to http://www.prestolite.com/pgs_support/tech_bulletins_select.php. There you will find other helpful information and specific wiring diagrams listed by model number.

Disconnect cables from battery before making following electrical connections:

1. Connect the existing alternator output cables to the appropriate primary output terminals of the alternator. Utilize the illustration for basic wiring connections.



Basic Wiring Connections

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Always ensure the size and gauge of cable your application is equipped with is appropriate.
Use the following chart to determine the correct wire sizes for your installation application.

'A' Load Circuit
 'B' AC Circuit
 'C' Field Circuit

**Recommended
Minimum Wire Size**

14 & 28 Volt Systems	Total Circuit Length	'A'	'B'	'C'
60-75 Amps	15 Feet or Less	#6	#8	#16
	16-25 Feet	#4	#6	#14
	26-40 Feet	#2	#4	#12
80-125 Amps	15 Feet or Less	#4	#6	#16
	16-25 Feet	#2	#4	#14
	26-40 Feet	#0	#2	#12
130-250 Amps	15 Feet or Less	#0	#4	#16
	16-25 Feet	#2/0	#2	#14
	26-40 Feet	#4/0	#0	#12
250-325 Amps	12 Feet or Less	#2/0	N/A	#16
	13-20 Feet	#4/0	N/A	#16

2. Turn off all switches and electrical loads. Replace one cable on battery. Momentarily touch second terminal to other battery post. If no spark occurs, fasten cables to battery posts. If a spark occurs, recheck polarity of battery and all above steps until the fault is found.

WARNING: Reverse polarity of battery connections will cause damage to the rectifier diodes in the alternator. Be sure to check wiring before making battery connections.

3. With a voltmeter set to "DC" measure the battery voltage at the primary positive and negative connection points. This should be above 12.45 volts in 12 volt systems and 24.9 volts in 24 volt systems. If it is less charge the batteries to or above 12.45 volts for 12 volt systems and 24.9 volts for 24 volt systems before proceeding. Failure to do so could contribute to immediate damage of the alternator.

4. Start the engine and operate at 1000 RPM. Now re-check the voltage at the primary positive and negative output terminals of the alternator. The voltage should now be within a range of 14.0 to 14.25 volts for 12 volt systems and 28.0 to 28.50 volts for 24 volt systems.

If you have questions or concerns please contact Leece-Neville Technical Service at 1-866-288-9853 for further information.

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